REMARKS/ARGUMENTS

The Office Action dated November 3, 2005 and the references cited therein have been carefully considered. In response to the Office Action, Applicant has amended the Abstract and Specification. Applicant has further canceled Claim 4, amended Claims 1-3, 5-6, 9-10, 12-14 and 16, and added new Claims 17-21 which, when considered with the remarks set forth below, are deemed to place the case with Claims 1-3 and 5-21 in condition for allowance.

Abstract Objection

In the Office Action, the Abstract has been objected to because of the occurrences of the word "means" and because the Abstract is over 150 words. In response, Applicant has amended the Abstract to delete the word "means" and has shortened the Abstract to fewer than 150 words. Accordingly, it is believed that the Abstract objection has been overcome.

Specification Objections

The disclosure has also been objected to because of numerous instances where the specification shows reliance from features characterized by claims. In response, Applicant has amended the specification to delete all references to claim numbers. Accordingly, it is believed that the specification objections have been overcome.

Claim Objections

Also in the Office Action, Claims 4 and 10 have been objected to because of informalities. In response, Applicant has amended Claim 1 to add the phrase --in a first direction-- thereby providing proper antecedent basis for the phrase "said first direction" found in Claim 4. Applicant has also amended Claim 10 to replace the phrase "animals from

of off" with the correct phrase -- animals from or off--. Accordingly, it is believed that the claim objections have been overcome.

Claim Rejections - 35 USC §112, second paragraph

Claims 1-8, 10 and 12-14 have been rejected under 35 U.S.C. §112, second paragraph, as being indefinite. In response, Applicant has amended the claims accordingly to address each and every specific rejection set forth in the Office Action. Accordingly, it is believed that the claim rejections under 35 U.S.C. §112, second paragraph, have been overcome.

Claim Rejections - Prior Art

Further in the Office Action, Claims 1-3, 7 and 8 have been rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 3,862,502 to Young and Claim 9 has been rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 3,297,980 to Haslett. Claims 4 and 6 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over the Young patent in view of the Haslett patent. Claim 5 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over the Young patent in view of the Haslett patent and further in view of U.S. Patent No. 4,563,830 to Cain Jr. et al. Claims 9, 14 and 15 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over the Cain patent in view of the Haslett patent and Claims 10-13 and 16 have been rejected under § 103(a) as being unpatentable over the Cain patent in view of the Haslett patent and further in view of the Young patent.

Claim 1

In response, Applicant has amended Claim 1 to include the limitations of dependent Claim 4 and to further define the detection means and the operating means as being provided

on the collecting device. It is respectfully submitted that none of the prior art references, taken alone or combined, discloses an operating means for moving a tine into the bottom surface of a body of water to apply a fluid under pressure in response to the detection of animals by a detection means, wherein both the detection means and the operating means are provided directly on the collecting device.

In particular, while the Haslett patent discloses a detecting means, such means are not provided on the collecting device itself, nor does the device activate a movable tine for injecting a fluid under pressure below a bottom surface of a body of water, as defined in amended Claim 1. Instead, the Haslett patent discloses a fishing device having an echo-sounding apparatus for trawler fishing in which echo-location means are used for detecting fish swimming in front of the opening of the net. From the description, it is clear (for example column 3 lines 64-70 (especially 69-70)) that this device is by no means intended to detect fish or shellfish or the like lying on the bottom of the ocean floor, since the echoing means are such that they do not detect anything on the ocean floor. Therefore, this document would not lead any person skilled in the art to forcing anything into the sea bed, nor for using the detecting means for doing so.

Similarly, the Cain patent only discloses an apparatus for harvesting crayfish in which a pulsating current is directed through the water, near the bottom thereof, between electrodes in front of the harvesting apparatus and the dragging means. No disclosure whatsoever is given of means for moving the electrode up and down in response to the detection of animals in front of the apparatus. In stark contrast, the electrodes disclosed in the Cain patent are always above the (shallow) bottom due to the carrying means 38. Moreover, the electrodes 4 are neither meant to be, nor suitable for, introduction into the sea bottom.

Turning to the Young patent, this patent discloses a means for harvesting claims, in which a series of jet nozzles are forced into the ground and trailed by a netting cage, which is dragged through the seabed following the jets. During use, a high pressure fluid (water) is forced through the jets into the ground, liquefying the relevant part of the sea bed such that clams can be sifted out by the netting cage. While the Young patent discloses the use of fluid

nozzles to collect animals from the sea bottom, at least two major differences with the claimed invention are clear.

First, just as in the Haslett and Cain patents, there is absolutely no teaching or suggestion of a detection means and an operating means provided on the collecting device for detecting animals on or in the sea bottom. More specifically, no means at all are provided with the Young device for moving the tines in and out of the sea bottom, especially not based on any detecting signal. Although the jet nozzles are shown positioned in the sea bottom, and therefore are moved into the sea bottom at least once, they are not moved up and down and are kept in the desired position by the sled 20 defining the depth of penetration.

Second, the netting cage is dragged through the sea bottom also, which is necessary for sieving out the clams in a device according to Young, which still disturbs the sea bottom considerably, even though the sieved ground will be deposited back onto the sea bottom relatively closely. In the present invention, the tines are moved into the sea bottom and are used for forcing the clams or other shellfish and/or fish out of the sea bottom upward, into a collecting device carried above the sea bottom from which they are forced (sucked) up through a pipe onto the ship. This leads to an absolute minimum disturbance of the sea bottom, contrary to the prior art. By combining tines and jet nozzles in this manner, this disturbance is kept to a minimum whereas the clams or other shells and/or fish can be forced out of the sea bottom more easily. Such is neither known nor obvious from any of the references cited by the Examiner.

Accordingly, for all of the foregoing reasons, it is respectfully submitted that Claim 1, as amended, and the claims that depend therefrom patentably distinguish over the prior art.

Claim 9

Applicant has further amended independent Claim 9 to define a device for collecting animals having a detecting means and a means for moving animals supported together on a

supporting means of the collecting device. The detecting means detects animals and generates a signal to drive the means for moving the animals when an animal is detected.

Again, it is respectfully submitted that none of the prior art references, taken alone or combined, discloses a detecting means and a means for moving animals supported together on a supporting means of the collecting device, wherein the detecting means drives the moving means for collecting the animals. Thus, for the same reasons as set forth above, it is submitted that Claim 9, as amended, the claims that depend therefrom patentably distinguish over the prior art.

New Claim 17

Applicant has also added new Claim 17, which defines a method for collecting animals from the bottom of a body of water including the steps of moving a collecting device along the bottom surface of a body of water, detecting the presence of animals in front of the collecting device, applying a fluid under pressure below the bottom surface of the body of water upon detection of the presence of animals in front of the collecting device and collecting animals dislodged by the applied fluid under pressure. It is respectfully submitted that none of the cited prior art references, taken alone or combined, discloses the step of applying a fluid under pressure below the bottom surface of a body of water upon detection of the presence of animals in front of the collecting device.

As described above, while the Haslett patent discloses the step of detecting animals, there is absolutely no mention of using this information to activate a mechanism to collect the animals. Instead, Haslett merely describes transmitting animal detection signals to a display device located on board a ship.

In the method according to Claim 17, if the presence of an animal is detected in front of a collecting device, a fluid under pressure is applied below the bottom surface of the body of water and any animals dislodged as a result of the applied pressurized fluid are collected. Such steps are neither known nor obvious from any of the references cited by the Examiner.

Accordingly, it is respectfully submitted that new method Claim 17 patentably distinguishes over the prior art.

New Claim 20

Applicant has also added new Claim 20, which defines a device for collecting animals from the bottom of a body of water including a support frame having at least one runner movable along a bottom surface of a body of water, an animal detector provided on the support frame for detecting the presence of animals in the vicinity of the support frame, an animal mover provided on the support frame and an animal collector for collecting animals. The animal mover is activated by the animal detector upon the detection of the presence of animals to move the detected animals from the bottom of the body of water into the animal collector.

It is respectfully submitted that none of the cited prior art references, taken alone or combined, discloses an animal mover being activated by the presence of animals detected by an animal detector. Accordingly, it is respectfully submitted that new Claim 20 patentably distinguishes over the prior art.

Conclusion

In view of the foregoing amendment and remarks, favorable consideration and allowance of the application with Claims 1-3 and 5-21 are respectfully solicited. If the Examiner believes that a telephone interview would assist in moving the application toward allowance, he is respectfully invited to contact the Applicant's attorney at the telephone number listed below.

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